

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002090**Date Inspected:** 05-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

New OBG:

The QA Inspector randomly observed ZPMC welder Wang Lanying ID Number 045265, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on Weld Joint (WJ) Number SEG013A-002 on Side Plate Sub-Assembly SP009-001/SP017-001 to SP025-001. The QA Inspector randomly observed ZPMC CWI Chen Chih-Ming monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 650 amps, 32 volts with a travel speed of 488 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Bay 1 OBG:

The QA Inspector performed a Visual Inspection of 100% of the WJ's 007 through 010 on Deck Plate Assembly DP051-001, and recorded the data on a separate spreadsheet.

Bay 3 OBG:

The QA Inspector randomly observed ZPMC welder Wang Zhanghua ID Number 053753, utilizing the Shielded

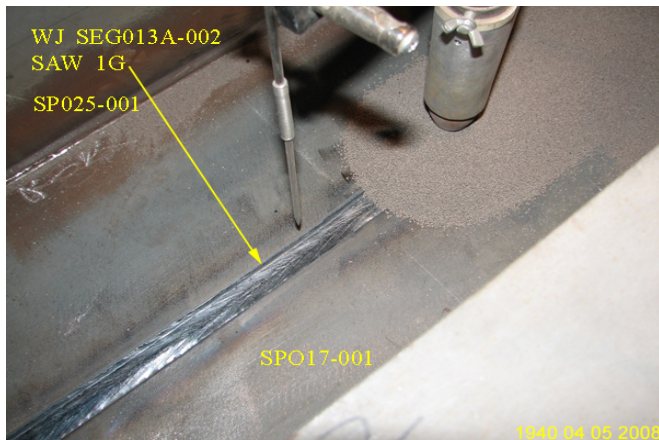
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Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-B-P-2112, to tack weld I-Ribs to Side Plate SP423-001. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder operators Sun Ti Yu ID Number 054459, Xin Meng ID Number 053742 and Liu Zihong ID Number 062447, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2F (Horizontal Fillet) Position with gantry mounted welding apparatus and ZPMC WPS WPS-B-T-2132-3, to weld T-Ribs on Bottom Plate BP138-001 WJ's 007/008, 011/012, 015/016 respectively. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 306 amps, 30.1 volts (WJ 007), 305 amps, 30.7 volts (WJ 008); 307 amps, 30.3 volts (WJ 011); 306 amps, 30.4 volts (WJ 012); 289 amps, 30.3 volts (WJ 015) and 305 amps, 30.8 volts (WJ016). Travel speed for all welds was randomly observed at 446 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Li Zhaoqian ID Number 044810, utilizing the FCAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-TC-U4b-F, to weld various I-Stiffener butt splices for use in the fabrication of Side Plate Sub-Assembly SP415-001. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly monitored weld parameters on WJ SP415-001-015 and recorded them as follows: 301 amps, 29.6 volts with a travel speed of 300 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.



Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Pat Lowry (858) 344-2712, who represents the Office of Structural Materials for your project.

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Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer